

Mineral Industry Surveys

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LEAD IN APRIL 2010

Domestic mine production (recoverable) of lead in April was estimated to be 33,000 metric tons (t), according to the U.S. Geological Survey. Average daily mine production in April was 1,100 t, 4% higher than that in March 2010. Secondary refinery production of lead in April decreased by 4% from that of the previous month. Secondary refined lead production for the year to date through April 2010 was 4% lower than that in the corresponding period of 2009.

Total imports of lead for consumption for the year to date through March 2010 were 19% greater than those in the same period in the previous year. Canada (87%) and Mexico (11%) were the principal sources of imported refined lead for the first 3 months of 2010. Total exports of lead, exclusive of scrap, in March 2010 were 190% higher than those in the previous month owing to an increase in lead-containing ore and concentrates exports. China and Canada were the leading destinations for ore and concentrates exports through March 2010. Exports of lead scrap in March 2010 increased slightly from those in the previous month. Canada and the Republic of Korea were leading destinations for lead scrap exports through March 2010.

The average Platts Metals Week North American producer price for lead in April 2010 was \$1.11 per pound, up slightly from that of the previous month and 65% higher than that in April 2009. The London Metal Exchange (LME) cash price of lead in April 2010 averaged \$2,264 per metric ton, up 4% from that of the previous month and 64% higher than that in April 2009. Global LME lead stocks at the end of April 2010 were 182,125 t, 3% higher than those at the end of March 2010 and 152% greater than those at month-end April 2009.

Based on information presented at its meeting in April, the International Lead and Zinc Study Group (ILZSG) forecast that global lead mine production in 2010 would be 4.20 million metric tons (Mt), about 5% greater than that of the previous year owing to increased mine output in Australia, China, India, and Mexico. Global refined lead production was forecast to be 9.41 Mt in 2010, nearly an 8% increase from global refined lead production in 2009. Much of this growth was attributed to increased Chinese refined lead production and production from new plants in Brazil and India. Global demand for refined lead in 2010 was forecast to rise by 7% from that of 2009, to 9.31 Mt, owing to increased lead usage in China for automobiles and electric bicycles. ILZSG predicted that the global supply of

refined lead would exceed demand during the remainder of the year, creating a lead surplus of nearly 100,000 t by yearend 2010 (International Lead and Zinc Study Group, 2010).

Exide Technologies (Alpharetta, GA) planned to close two of its three lead-acid battery facilities in Reading, PA, beginning in early June 2010. The company was planning a multiphase closure of the battery formation plant and distribution center and expected to shift those activities to Exide facilities in other states. These closures would not affect production at Exide's lead-acid battery recycling facility in Reading (Platts Metals Week, 2010).

In April, the U.S. Environmental Protection Agency (EPA) announced that renovations and repairs of child care facilities, houses, and schools built before 1978 (when the use of lead-based paint in housing was banned by the Federal Government) must be conducted using safe practices to protect children and pregnant women from exposure to lead-based paint. Common renovation activities that disturb lead-based paint such as cutting, demolition, and sanding can generate lead chips and dust that are potentially harmful to adults and children. The EPA's Lead Renovation, Repair, and Painting Rule, finalized in 2008, required contractors to be trained and certified in lead-safe work practices and became effective on April 22, 2010. Lead-safe work practices reduce the potential exposure associated with disturbing lead-based paint. More than 160,000 workers in the construction and remodeling industries had received training as of April. The EPA also announced advanced notice of proposed rulemaking that would apply lead-safe work practices to renovations on public and commercial buildings (U.S. Environmental Protection Agency, 2010).

References Cited

- International Lead and Zinc Study Group, 2010, ILZSG spring 2010 meetings—Forecasts: Lisbon, Portugal, International Lead and Zinc Study Group press release, April 29, 4 p.
- Platts Metals Week, 2010, Exide to close two plants: Platts Metals Week, v. 81, no. 16, April 19, p. 9-10.
- U.S. Environmental Protection Agency, 2010, EPA announces start of national lead-safe renovation program to protect children and pregnant women EPA also strengthens protections in lead-safe program: Washington, DC, U.S. Environmental Protection Agency news release, April 23, 3 p.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2009		2010		
	Year	January-April	March	April	January-April
Production:					
Mine (recoverable)	395,000	134,000	32,700	33,000 ^e	126,000
Secondary refinery:					
Reported by smelters/refineries	1,120,000	381,000	89,900 ^r	86,100	367,000
Estimated	11,200	3,810	900 ^r	861	3,670
Recovered from copper-base scrap ^e	15,000	5,000	1,250	1,250	5,000
Total secondary	150,000	389,000	92,100 ^r	88,200	375,000
Consumption:					
Reported	1,380,000	461,000	110,000 ^r	110,000	450,000
Undistributed ^e	41,500	13,800	3,310 ^r	3,310	13,500
Total	1,430,000	475,000	114,000 ^r	113,000	464,000
Stocks, end of period, consumers and secondary smelters	61,700	74,200	55,700 ^r	50,300	50,300
Imports for consumption:					
Base bullion	844	344	19	NA	127 ²
Refined metal	251,000	79,300	26,400	NA	68,300 ²
Exports:					
Ore and concentrate	287,000	85,300	19,100	NA	34,000 ²
Bullion	34	25	--	NA	-- ²
Wrought and unwrought lead	82,000	32,500	9,780	NA	21,100 ²
TEL/TML preparations, based on lead compounds	2,070	1,420	63	NA	206 ²
Scrap (gross weight)	140,000	45,600	6,220	NA	19,100 ²
Platts Metals Week North American producer price (cents per pound)	86.87	66.44	110.53	110.88	110.75

^eEstimated. ^rRevised. NA Not available. -- Zero.

¹Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

²Includes data for March only; April 2010 data were not available at time of publication.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price ¢/lb	London Metal Exchange cash		Sterling exchange rate \$/£
		\$/metric ton	£/metric ton	
2009:				
April	67.24	1,382.08	940.30	1.469815
May	71.79	1,439.58	934.07	1.541189
June	81.92	1,673.65	1,012.14	1.635659
July	86.91	1,678.05	1,024.84	1.637377
August	94.50	1,899.26	1,147.34	1.655350
September	107.80	2,203.82	1,348.43	1.634360
October	110.79	2,240.00	1,389.69	1.611869
November	111.03	2,308.19	1,390.84	1.659562
December	111.11	2,327.76	1,431.91	1.625638
January-December	86.87	1,718.49	1,086.44	1.564528
2010:				
January	111.24	2,367.70	1,464.68	1.616535
February	110.35	2,122.45	1,358.72	1.562100
March	110.53	2,171.66	1,443.00	1.504961
April	110.88	2,264.48	1,526.82	1.483130
January-April	110.75	2,231.57	1,448.31	1.541682

Source: Platts Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP¹

(Metric tons, gross weight)

Item	Stocks March 31, 2010	Net receipts	Consumption	Stocks April 30, 2010
Battery-lead	24,900 ^r	84,400	79,500	29,800
Soft lead	W	W	W	W
Drosses and residues	W	W	W	W
Other ²	1,120 ^r	7,560	7,510	1,170
Total	26,000 ^r	91,900	87,000	31,000
Percent change from preceding month ³	XX	-0.7	-5.2	+18.9

¹Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap.

³Based on unrounded data; preceding month may have been revised.

TABLE 4
LEAD, TIN, AND ANTIMONY RECOVERED FROM
LEAD-BASE SCRAP IN APRIL¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	73,000	--	--
Remelt lead	W	--	--
Antimonial lead	9,580	(2)	(2)
Other ³	3,470	(2)	(2)
Total lead-base	86,100	128	244

W Withheld to avoid disclosing company proprietary data; included in "Other."

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Withheld to avoid disclosing company proprietary data; included in "Total."

³Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5
CONSUMPTION OF LEAD IN THE UNITED STATES¹

(Metric tons, lead content)

Use	2009		2010		
	January- December	January- April	March	April	January- April
Metal products:					
Ammunition, shot and bullets	70,500	23,500	6,190	6,310	24,100
Brass and bronze, billet and ingots	3,920	1,360	233	233	974
Cable covering, power and communication and calking lead, building construction	5,830	2,970	538	653	2,270
Casting metals	20,100	6,710	915 ^r	928	3,760
Sheet lead, pipes, traps and other extruded products	27,100	9,120	2,460 ^r	2,290	9,370
Solder	7,270	2,350	549 ^r	549	2,710
Storage batteries, including oxides	1,210,000	402,000	96,200 ^r	96,000	394,000
Terne metal, type metal, and other metal products ²	16,700	5,560	1,220 ^r	1,220	5,050
Total metal products	1,360,000	453,000	108,000 ^r	108,000	442,000
Other oxides and miscellaneous	21,300	8,050	2,020 ^r	2,020	7,790
Total reported	1,380,000	461,000	110,000 ^r	110,000	450,000
Undistributed ^e	41,500	13,800	3,310 ^r	3,310	13,500
Grand total	1,430,000	475,000	114,000 ^r	113,000	464,000

^eEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

U.S. Consumption of Lead

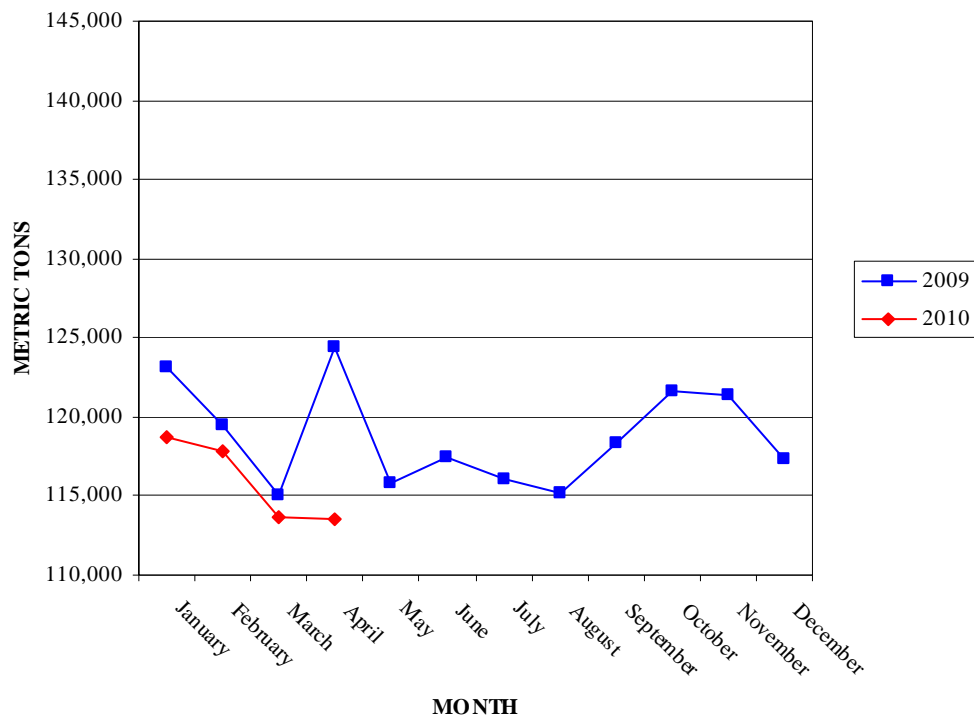


TABLE 6
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD¹

(Metric tons, lead content)

Type of material	Stocks March 31, 2010	Net receipts	Consumption	Stocks April 30, 2010
Soft lead	29,300 ^r	67,100	71,900	24,600
Antimonial lead	17,700 ^r	20,700	21,400	17,000
Lead alloys	W	W	W	W
Copper-base scrap	W	W	W	W
Total	55,700 ^r	105,000	110,000	50,300

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Data are rounded to no more than three significant digits.

TABLE 7
U.S. EXPORTS OF LEAD, BY CLASS¹

(Metric tons)

	2009		2010		
	Year	January- March	February	March	January- March
Lead content:					
Ore and concentrates	287,000	47,500	4,380	19,100	34,000
Bullion	34	16	--	--	--
Materials excluding scrap	82,000	20,600	5,490	9,780	21,100
TEL/TML preparations, based on lead compounds	2,070	767	98	63	206
Total	371,000	68,800	9,970	29,000	55,300
Gross weight, scrap	140,000	33,700	6,000	6,220	19,100

-- Zero.

¹Data are rounded to more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION BY TYPE OF MATERIALS AND BY
COUNTRY OF ORIGIN¹

(Metric tons, lead content)

Country of origin	2009		2010		
	Year	January- March	February	March	January- March
Ore, matte, etc., Canada	1,490	337	--	--	--
Base bullion:					
Mexico	810	285	37	19	89
Other	34	--	--	--	38
Total	844	285	37	19	127
Pigs and bars:					
Canada	205,000	43,600	19,300	23,000	59,500
Mexico	41,100	10,500	2,200	2,280	7,590
Peru	991	991	--	--	--
Other	4,020	1,720	--	19	19
Total	251,000	56,900	21,500	26,400	68,300
Grand total	253,000	57,500	21,600	26,400	68,400

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.